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INTELLECTUAL PROPERTY DEPARTMENT
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EXAMINER

SORKIN, DAVID L

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The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte FUFANG ZHA, CLINTON V. KOPP, ROBERT J. MCMAHON,
WARREN T. JOHNSON, and THOMAS W. BECK

Appeal 2009-013702
Application 10/759,560
Technology Center 1700

Before EDWARD C. KIMLIN, BRADLEY R. GARRIS, and
CATHERINE Q. TIMM, *Administrative Patent Judges*.

TIMM, *Administrative Patent Judge*.

DECISION ON APPEAL¹

I. STATEMENT OF CASE

Appellants appeal under 35 U.S.C. § 134 from the Examiner's
decision to reject claims 1, 3, 4, 7-15, 17, 19, and 20 under 35 U.S.C.

¹ The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the "MAIL DATE" (paper delivery mode) or the "NOTIFICATION DATE" (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

§ 103(a) as unpatentable over Uchida² (US JP 61-167407; Jul. 29, 1986) in view of Meyer (US 3,791,631; Feb. 12, 1974) and claims 1-20 under 35 U.S.C. § 103(a) as unpatentable over Geary, Jr. (Geary) (US 3,442,002; May 6, 1969) in view of Uchida and Meyer. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

Appellants' invention relates to a method of forming a membrane module comprising a plurality of porous membranes arranged in a relatively tightly packed bundle, suitable for a simple and effective system and method for removing fouling material from the surface of the porous membranes by use of gas bubbles (Spec. ¶¶ [0009] – [0010]). Claim 1 is illustrative:

1. A method for forming at least one opening in a membrane pot, the method comprising:

providing at least one membrane, the membrane having at least one membrane end;

providing a mould for potting the membrane end, the mould comprising a base comprising an ejector portion and at least one formation for forming at least one opening in the membrane pot;

filling the mould with a curable potting material;

positioning the membrane end in the mould;

allowing the potting material to at least partially cure, whereby the membrane ends are secured in the membrane pot; and

² We reference an English language translation which was submitted by Appellants as an Appendix to an Amendment filed November 8, 2006.

raising the ejector portion to demould the membrane pot,
the membrane pot having at least one opening.

II. UCHIDA/MEYER

A. ISSUE ON APPEAL

A first issue on appeal arising from the contentions of Appellants and the Examiner is: does the evidence support the Appellants' view that the Examiner erred in finding that Uchida teaches demolding the potted membrane, such that one of ordinary skill in the art would not have been motivated to add the ejector taught by Meyer for the purpose of demolding the structure? We answer this question in the negative.

B. DISCUSSION

Appellants do not present separate arguments for any particular claim on appeal. Accordingly, all the appealed claims stand or fall together with claim 1.

We adopt the Examiner's findings in the Answer as our own and add the additional findings of fact appearing below for emphasis.

The basis for Appellants' argument is that container 9 of Uchida is intended to be an integral component of the filtration module and is therefore not a mould, as claimed, nor does Uchida contemplate a demoulding step (Br. 5-6).

The Examiner provides a different interpretation of Uchida, finding that the mould (which the Examiner states includes container 9, rods 11 and container bottom surface 12) is shown in Figure 3 with the resin 3 still in the mould but only the resin 3 is shown in the final product module shown in Figure 1 (Ans. 7; *compare* Uchida, Figures 1 and 3). The Examiner also finds that the third full paragraph on page 4 of the Uchida translation

describes an alternative method that does not involve demoulding the cured resin, in which the housing 4 shown in Figure 1 is used as a container for the purposes of molding the resin 3 (Ans. 7; Uchida, at 4).

Appellants reply that the Examiner's interpretation of Uchida places undue emphasis on the Figures and is a mischaracterization of the context of the reference, particular the page 4 statement (Reply Br. 7-8).

We agree with the Examiner's position because the Examiner's reading of Uchida is a reasonable one, supported by the particular findings of fact made by the Examiner pointing out the distinctions between Figures 1 and 3. In this case, the Examiner is not reading into the teachings facts that are not supported by the evidence. Instead, the Examiner is reasonably deducing what Uchida teaches one of ordinary skill in the art. We find no persuasive argument from Appellants that convinces us otherwise. Instead, Appellants state (without support) that the inventors of Uchida "intended" an alternative interpretation (Br. 5; Reply Br. 6). Appellants' generalized disagreement in the face of the Examiner's reasonable interpretation of the reference is unpersuasive.

III. GEARY/UCHIDA/MEYER

A. ISSUE ON APPEAL

A second issue on appeal arising from the contentions of Appellants and the Examiner is: does the evidence support the Appellants' view that the Examiner erred in concluding that one of ordinary skill in the art would have arrived at the claimed invention based on the teachings of Geary, Uchida, and Meyer? We answer this question in the negative.

B. DISCUSSION

Appellants do not present separate arguments for any particular claim on appeal. Accordingly, all the appealed claims stand or fall together with claim 1.

We adopt the Examiner's findings in the Answer as our own and add the additional findings of fact appearing below for emphasis.

Appellants argue that one of ordinary skill in the art would not have modified the mold taught by Geary to provide the opening in the membrane pot using the removable rods/tubes taught by Uchida because the setup would be unlikely to withstand the centrifugal force applied during the Geary process (Br. 7). However, neither Appellants' Appeal Brief nor Reply Brief points to any evidence to support Appellants' contention. Unsubstantiated arguments by Appellants' attorney do not take the place of evidence in the record. *In re Pearson*, 494 F.2d 1399, 1405 (CCPA 1974). Without additional evidence, we do not find Appellants' argument persuasive.

Appellants also argue that one of ordinary skill in the art would not have modified the mold unit 905b of Geary to include the ejector portion taught by Meyer because "[m]old unit 905b is already easily removed from casing assembly 101 via bolts 906 to release cast wall member 950" and as such an ejector would not be necessary and would require unnecessary and substantial reconstruction and redesign of structural elements disclosed by Geary (Br. 7). We find this argument by Appellants also insufficiently persuasive to overcome the Examiner's prima facie case of obviousness.

The Examiner has reasonably stated that “[i]t would have been obvious to one of ordinary skill in the art to have provided the base of the mold with an ejector to assisting [sic] removing the molded object as taught by Meyer” (Ans. 5).

In an obviousness analysis, the question to be asked is “whether the improvement is more than the predictable use of prior art elements according to their established functions.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (2007). “[I]f a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.” *Id.*

One of ordinary skill in the art would have recognized that an ejector would aid in the removal of the mold of Geary in the same way it aids in the removal of the mold in the teachings of Meyer. The modification would be no more than the predictable use of the ejector according to its established function of aiding in the removal of a molded product from a mold.

We disagree with Appellants that the presence of the bolts 906 would discourage the additional assistance of an ejector for removing the molded product of Geary. Additionally, we find that any redesign to incorporate the mold would have been within the skill of the ordinary artisan, as evidenced by the structure of the ejector in a base as taught by Meyer.

IV. CONCLUSION

On the record before us and for the reasons discussed above, we sustain the rejections maintained by the Examiner.

V. DECISION

We affirm the Examiner's decision.

VI. TIME PERIOD FOR RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED

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